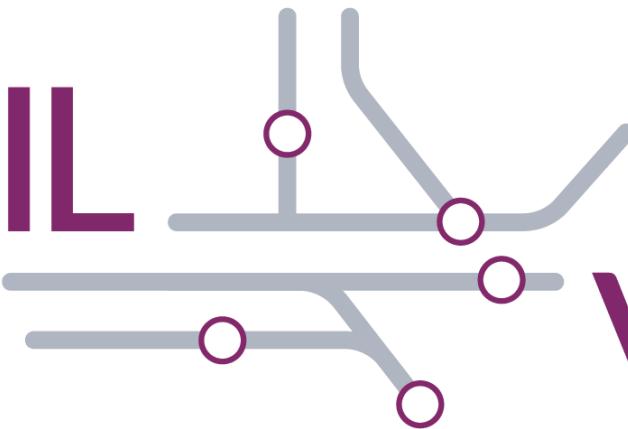




RAIL



VISION

FMCB and MassDOT Board Meeting

OCTOBER 15, 2018

Project Progress Since July

- ✓ Continued Stakeholder Outreach Process
 - Met with various subject matter experts & stakeholder organizations
 - Held second Advisory Committee meeting
- ✓ Developed Line-Level Service Concepts
- ✓ Initiated Tier 1 Evaluation using Sketch Tools
 - ATTUNE
 - Regional Dynamic Model (RDM)
 - Operating cost model

Rail Vision Advisory Committee

Jim Aloisi, Principal, TriMount Consulting

Helena Fruscio Alstman, Deputy Assistant Secretary of Innovation, Entrepreneurship and Technology, EOHD

Senator Joseph A. Boncore

Senator William N. Brownsberger

Mayor Michael Cahill, City of Beverly

Stephanie Cronin, Middlesex 3

Rick Dimino, President & CEO, A Better City

Representative Carolyn C. Dykema

Ben Forman, Research Director, MassINC

Peter Forman, President & CEO, South Shore Chamber of Commerce

Ray LeDoux, Administrator, Brockton Area Transit

Paul Matthews, Executive Director, 495/MetroWest Partnership

Jesse Mermell, President, Alliance for Business Leadership

Congressman Seth Moulton

Timothy Murray, President and CEO, Worcester Chamber of Commerce

Chris Osgood, Chief of Streets, Transportation, and Sanitation, City of Boston

Joshua Ostroff, Partnerships Director, T4MA

Travis Pollack, Senior Transportation Planner, MAPC

Susanne Rasmussen, Director of Environmental and Transportation Planning, City of Cambridge

Mayor Dan Rivera, City of Lawrence

Representative Daniel J. Ryan



Tier 1 Service Concepts

Tier 1 Service Concepts

- Begins with service concepts that do one or more of the following:
 - Reduce travel time
 - Increase service frequency
 - Improve system connectivity
- Concepts vary in terms of cost and complexity
- Tests each concept on each line for effectiveness, and identify challenges
- Evaluates “packages” of concepts on a system-wide basis to develop up to 8 service alternatives
- **IMPORTANT: Not all service concepts will make sense for all lines and at all times**

Service Concept Idea

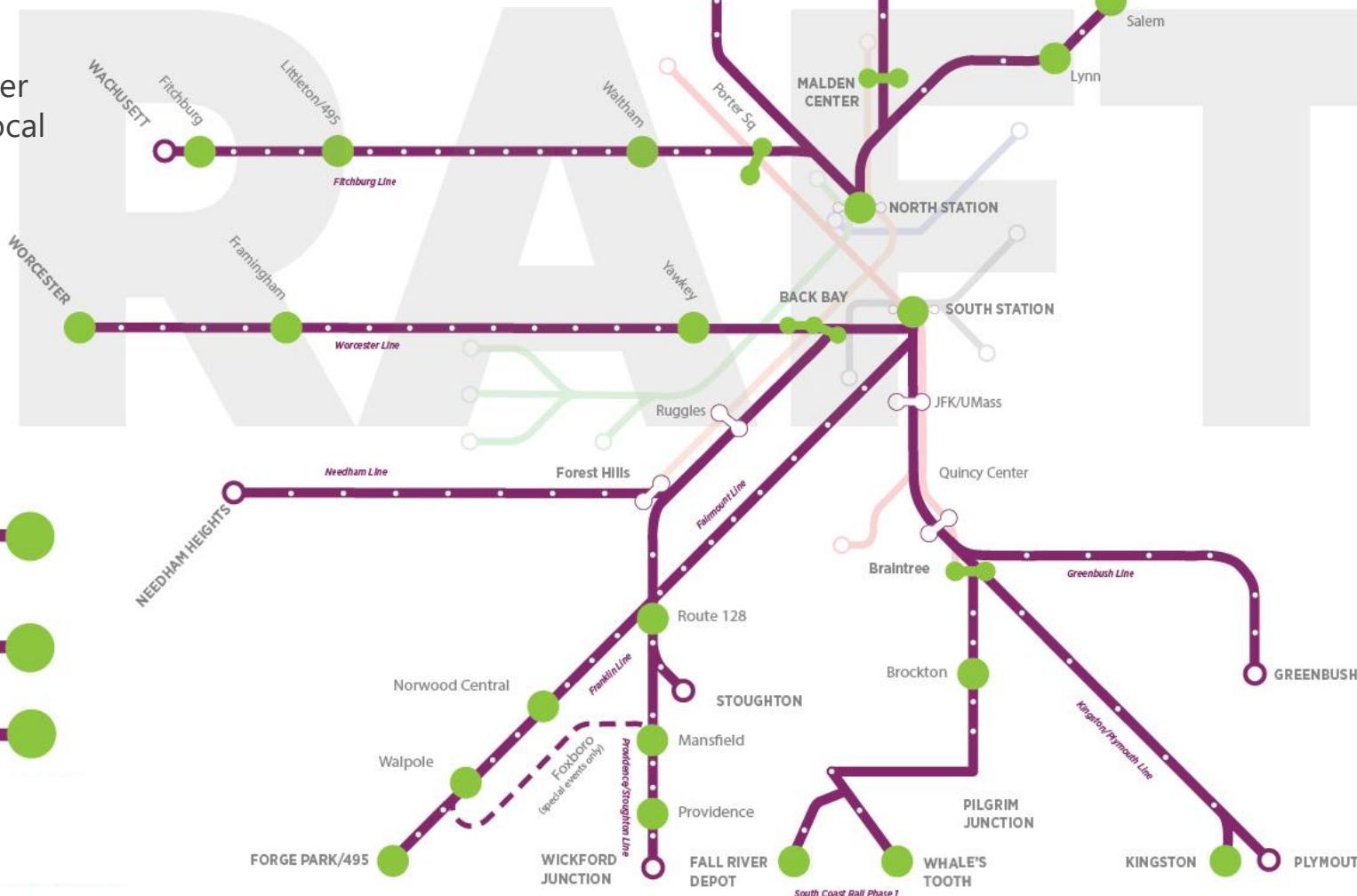
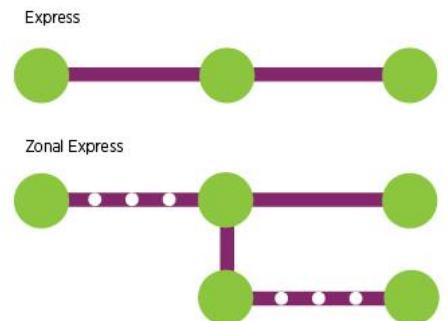
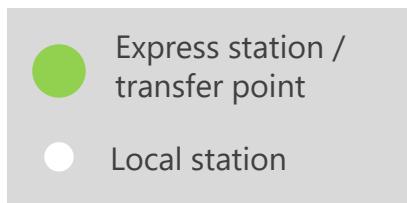
Express or Zonal Express

- Reduces Travel Time
- Increases Frequency

Express service makes few if any stops between terminal points. Would be combined with local service.

Zonal Express provides local service from an outer to intermediate stop, and express service to the core. Other service begins at the intermediate stop and provides local service to the core.

Tradeoffs Question: Are the Express Stations in the right locations? Is reducing travel time from high ridership, outer stations desirable if it requires a transfer for those traveling to or from lower ridership stations?



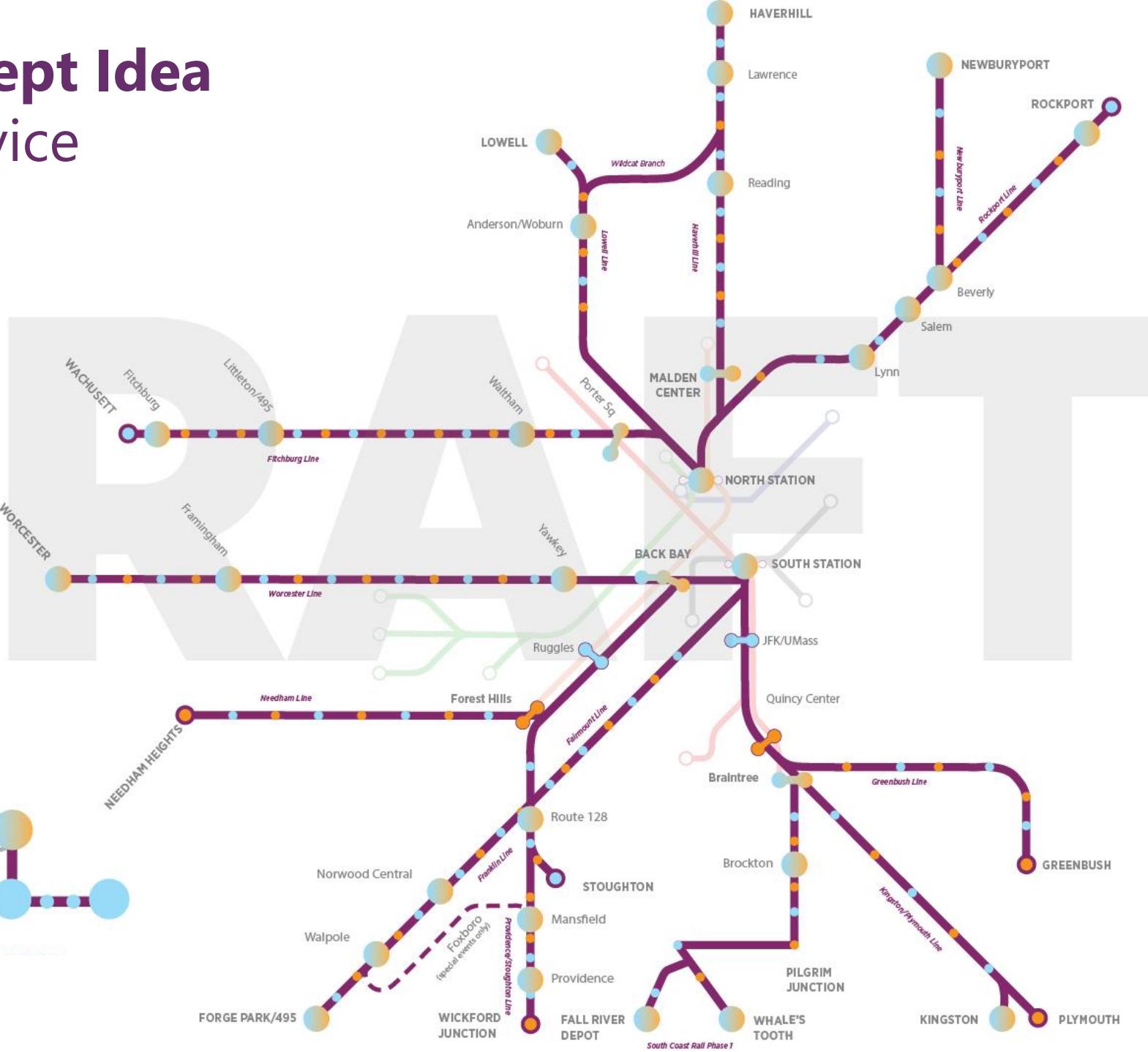
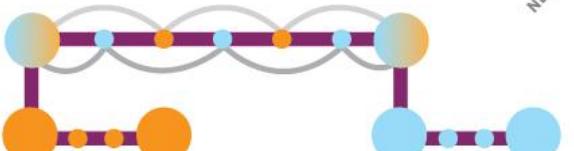
Service Concept Idea

Skip Stop Service

- Reduces Travel Time
- Increases Frequency

Skip Stop provides an equivalent level of service as seen today at each station but reduces overall travel times by having trains skip service at select stations (ex: every other station).

Tradeoffs Question(s): Is it acceptable to require a transfer to reach some intermediate stations?



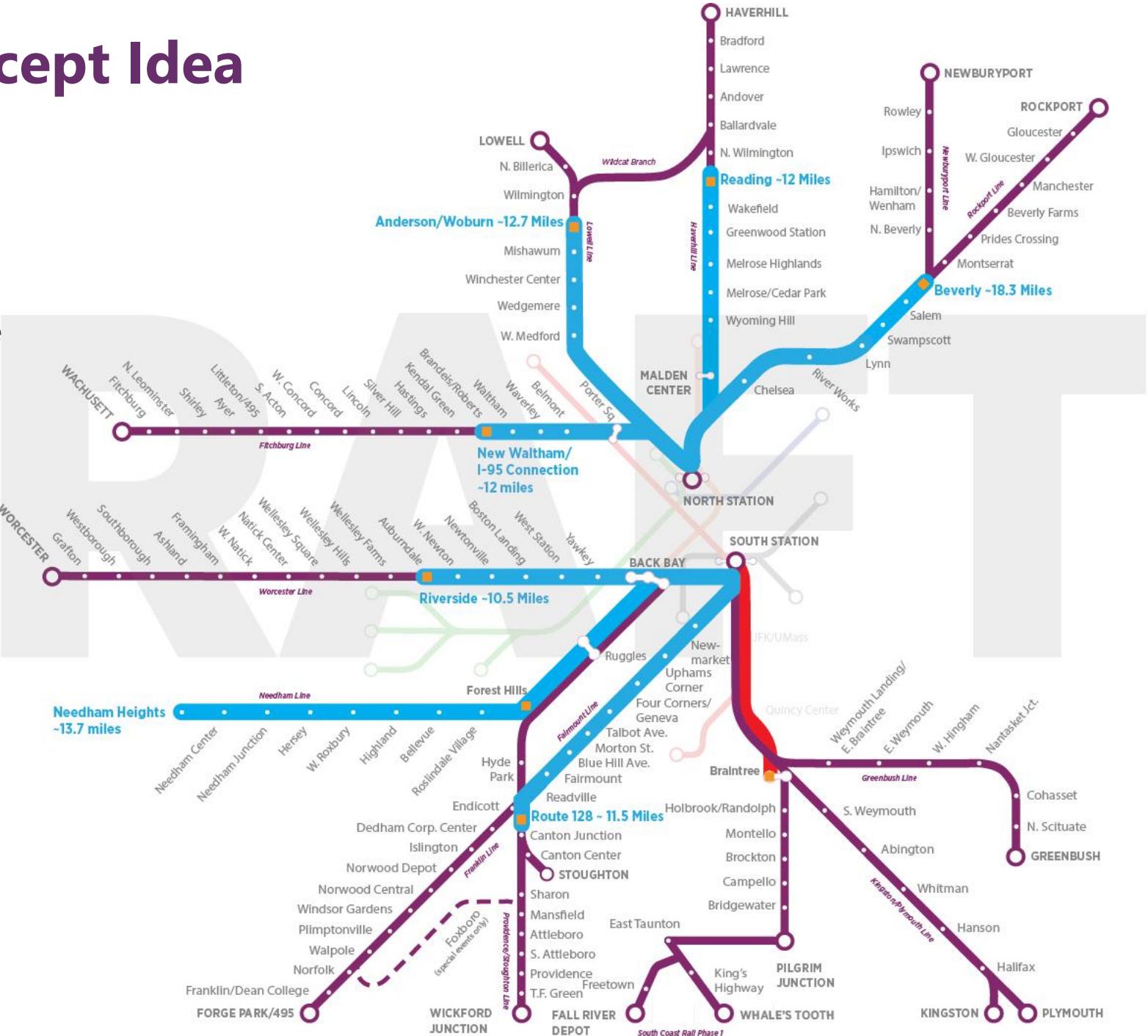
Service Concept Idea

Urban Rail

- Increases Frequency
- Improves Connectivity

Service Concept: Frequent, all-day service connecting higher density stations in the inner core using new vehicle technology

Tradeoffs Question: Are these the right portions of the lines? Is Urban Rail worth the investment if it requires more transfers? If it increases travel time to some locations?



Service Concept Idea

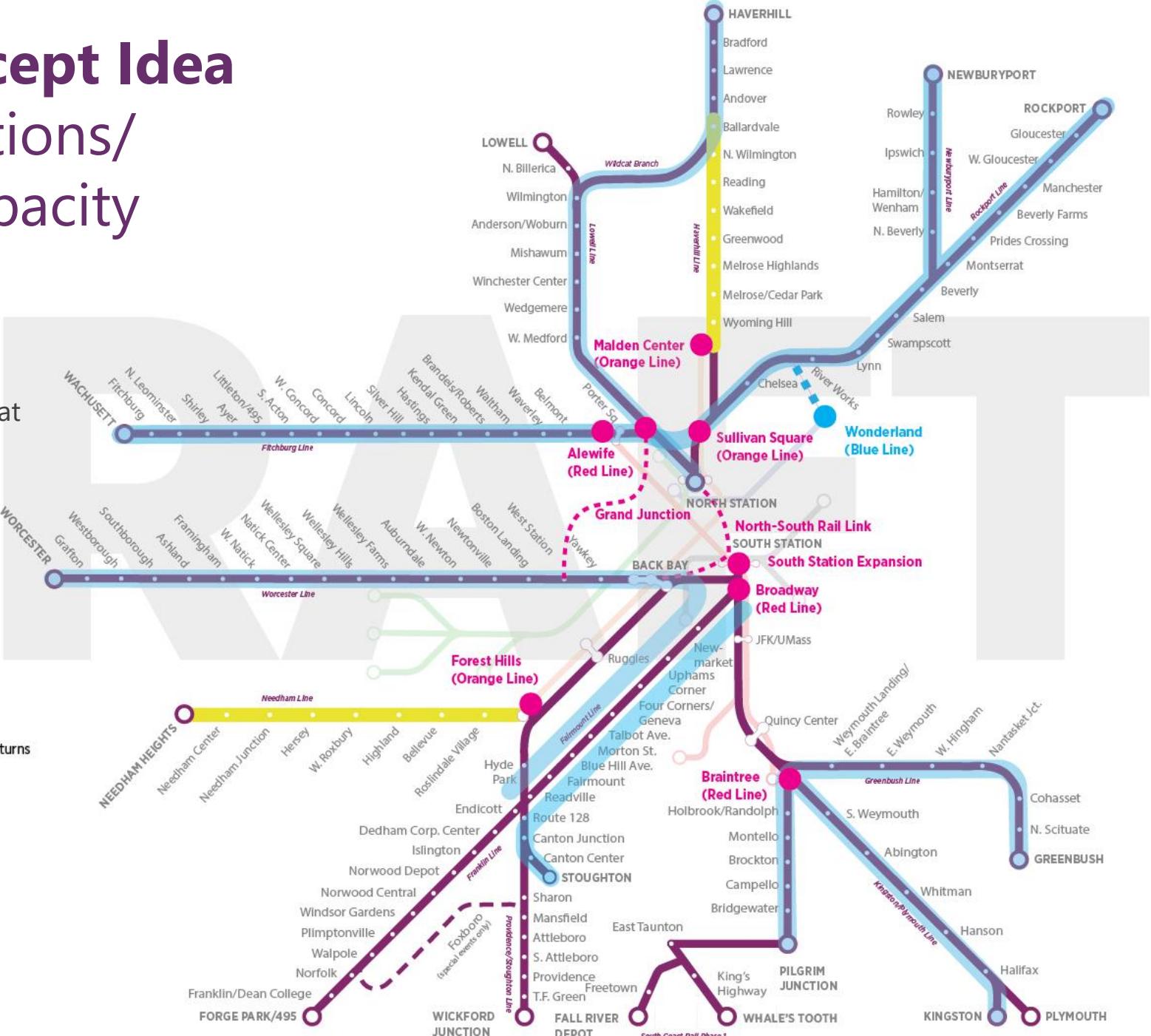
New Connections/ Increased Capacity

- Increases Frequency
- Improves Connectivity

Increases terminal capacity in the core through pairing service lines, providing connecting stops to rapid transit service, or through increased capacity at or between terminals.

Tradeoffs Question(s): How important is it for all trips to come into North or South Station if not doing so means more frequent service and improved connections to the rapid transit network?

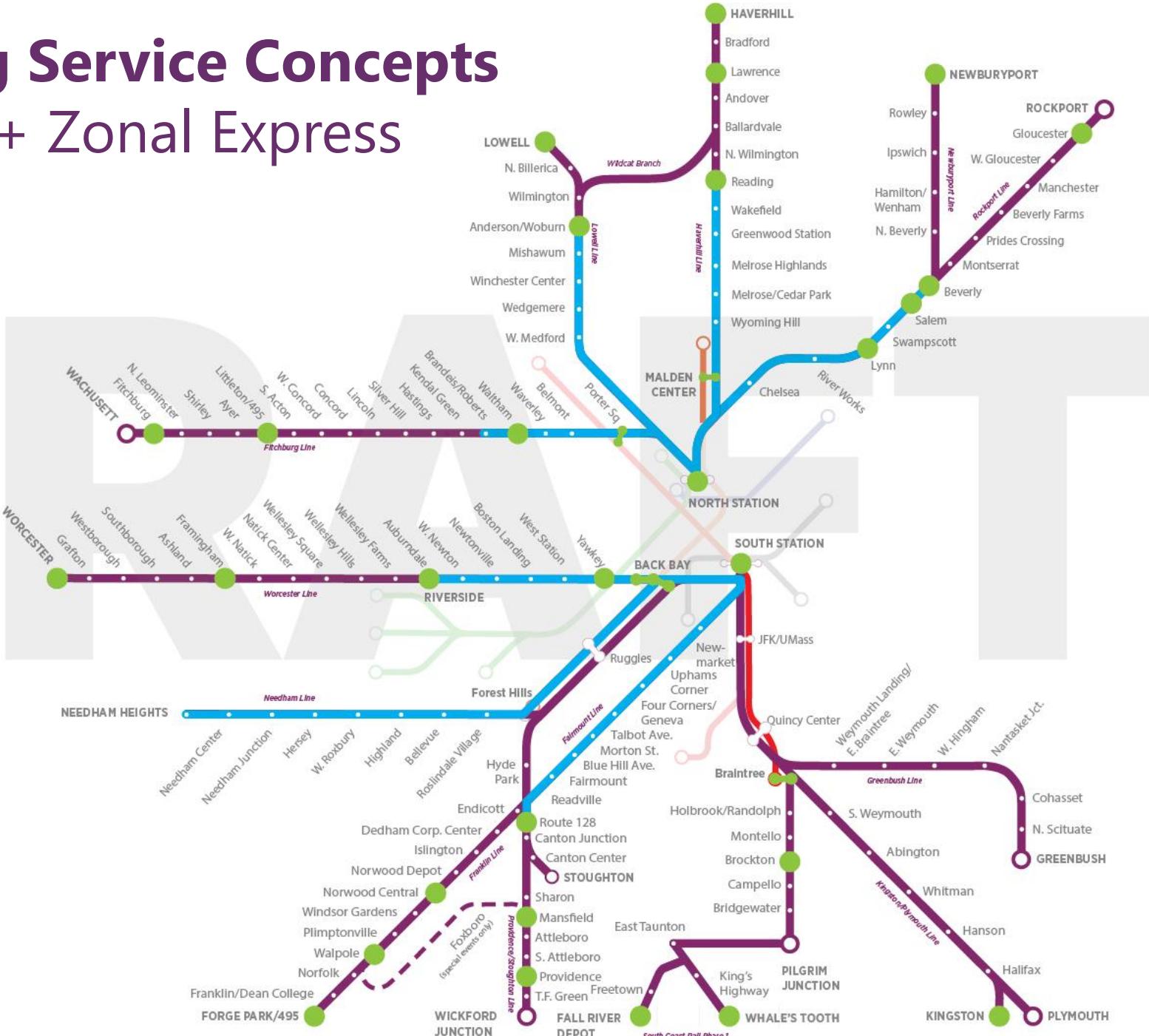
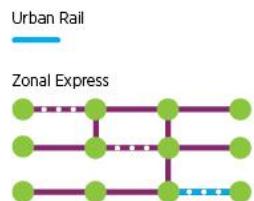
- New transfer point to rapid transit – no short turns
- Connecting stops to rapid transit, with potential short turns for some trains
- Interline service
- Potential conversion to alternate form of reliable transit



Combining Service Concepts

Urban Rail + Zonal Express

- Reduces Travel Time
- Increases Frequency
- Improves Connectivity



Tier 1 Sketch-Level Models

- *ATTUe* – scheduling model that will show what train operations are possible at a high level given certain investments
- *Operating Cost Model* – calculates operating cost implications of transit investments
- *Regional Dynamic Model (RDM)* – dynamic sketch model that calculates ridership estimates for different types of investments *and* addresses how transit investment affects land use

Tier 2 – will use traditional RTC model to evaluate operations, the CTPS model to evaluate ridership, and the RDM model to evaluate land use effects for the 8 service alternatives

Next Steps

	October	November	December	January
Refine service concepts based on Advisory Committee and Board input				
Continue evaluating service concepts against travel time savings, ridership and land use benefits, and operational efficiencies				
Present results of Tier 1 evaluation to Advisory Committee and Board				
Use Tier 1 results and AC/FMCB input to inform development of up to 8 service alternatives				
Begin Tier 2 evaluation and launch public outreach process				